	Application No.	Applicant(s)	
Notice of Allowability	10/692,006	NOBLE ET AL.	
	Examiner	Art Unit	
	Qing Chen	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to _the amendment filed on October 31, 2007_.

2. ☒ The allowed claim(s) is/are _1-20_.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

1.   This Office action is in response to the amendment filed on October 31, 2007.

2.   **Claims 1-20 are pending.**

3.   **Claims 1, 8, and 15** have been amended.

4.   **Claims 1-20 are allowed.**

5.   The 35 U.S.C. § 112, second paragraph, rejection of Claim 20 is withdrawn in view of

Applicant's amendments to the claim.

6.   The 35 U.S.C. § 101 rejections of Claims 1-7 are withdrawn in view of Applicant's

amendments to the claims.

Examiner's Amendment

7.   An Examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this Examiner's amendment was given in a telephone interview with

Mary Lou Wakimura (Reg. No. 31,804) on December 13, 2007.

The application has been amended as follows:

In the Claims:

Please amend Claims 1, 8, and 15 as follows:

1. (Currently amended) A computer apparatus for managing and sharing engineering data

for chemical engineering processes and plants, comprising:

a digital processor;

an editor defining (i) class views and (ii) a composite class view of the defined class

views, given one or more software applications of interest and each given software application

having a respective data model or data view, for each said given software application, the editor

providing a class view of the respective data model;

the editor consolidating said class views to form a composite class views, the

consolidating of said class views resulting in the creation of said composite class view being an

amalgamation and a rationalization of the individual class views, and the class views being

retained in a given software application domain terminology for managing and sharing

engineering data for chemical engineering processes and plants; and

a data server executed by [[a]] the digital processor and instantiating a multi-tier data

model, there being a core conceptual data model having a plurality of routes between attributes

in the composite class view and attributes in the core conceptual data model; the class views

effectively being one tier of the multi-tier data model, the composite class view effectively being

a second tier of the multi-tier data model and the core conceptual data model effectively being a

third tier, the multi-tier data model having links between corresponding attributes across tiers,

the multi-tier data model providing management and sharing of engineering data of the given

software applications with other process and plant engineering applications, and enhancing

process engineering and plant operations.

8. (Currently amended) A method of data modeling, comprising the computer implemented steps of:

(a) forming a multi-tier data model with links between corresponding attributes across tiers, a first tier being formed by:

for each of multiple given software applications of interest and having a respective data model, providing a practitioner's view of the given software application using a respective class view of the respective data model;

a second tier being formed by consolidating class views into a composite class view, the consolidation of said class views resulting in the creation of said composite class view being an amalgamation and a rationalization of the individual class views, and the class views being retained in a given software application domain terminology for managing and sharing engineering data for chemical engineering processes and plants; and

a third tier being formed by forming a core conceptual data model having a plurality of routes between attributes in the composite class view and attributes in the core conceptual data model; and

(b) sharing, via the multi-tier data model, engineering data of the given software applications with other process and plant engineering routines, and enhancing process engineering and plant operations.

15. (Currently amended) A computer program product comprising:

(a) a computer readable medium that manages engineering data; and

(b) a set of computer program instructions encoded on the computer readable medium,

the set of computer program instructions when executed on a computer causing the computer to:

provide a respective class view for each of plural given software applications of interest

and having a respective data model, each class view being of the respective data model;

form a composite class view from the class views, the consolidation of said class views

resulting in the creation of said composite class view being an amalgamation and a

rationalization of the individual class views, and the class views being retained in a given

software application domain terminology for managing and sharing engineering data for

chemical engineering processes and plants;

form a conceptual model having a plurality of routes between attributes in the composite

class view and attributes in the conceptual model;

form a consolidated multi-tier data model from the class views, the composite class view

and the conceptual model, the class views effectively being one tier of the consolidated multi-tier

data model, the composite class view effectively being a second tier of the consolidated multi-

tier data model and the conceptual model effectively being a third tier, the consolidated multi-tier

data model having links between corresponding attributes across tiers; and

via, the consolidated multi-tier data model, provide sharing of engineering data of the

given software applications with other process and plant engineering applications, and enhancing

process engineering and plant operations.

-- END OF AMENDMENT --

Reasons for Allowance

8.   The following is an Examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fail to teach, in combination with the

other claimed limitations, the consolidating of said class views resulting in the creation of said

composite class view being an amalgamation and a rationalization of the individual class views,

and the class views being retained in a given software application domain terminology for

managing and sharing engineering data for chemical engineering processes and plants as recited

in independent Claims 1, 8, and 15.

The closest cited prior art, US 7,047,518 (hereinafter "Little"), teaches a system for

integrated computer software application development and modeling. However, Little fails to

teach the consolidating of said class views resulting in the creation of said composite class view

being an amalgamation and a rationalization of the individual class views, and the class views

being retained in a given software application domain terminology for managing and sharing

engineering data for chemical engineering processes and plants as recited in independent Claims

1, 8, and 15.

Any comments considered necessary by Applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to Applicant's

disclosure.

        Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The

Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM.

The Examiner can also be reached on alternate Fridays.

        If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

        Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QC
December 13, 2007

WEI ZHEN
SUPERVISORY PATENT EX· ·